Message

From: Baker, Lorie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=73F8A9187DD0460AB3D3B4ABEB1C6026-LBAKER04]
Sent: 8/15/2019 7:36:17 PM
To: Yap-deffler, Yazmine [Yap-Deffler.Yazmine@epa.gov]; Hirsh, Steven [Hirsh.Steven@epa.gov]
CC: O'Loughlin, Connor [oloughlin.connor@epa.gov]
Subject: RE: Questions on Blades from OMB and OLEM AA

Yazmine/Steve,

Here are the responses to the questions. Please let me know if you have any comments/concerns prior to me forwarding them to Terry.

Thanks!

Lorie

From: Jeng, Terry <Jeng.Terry@epa.gov>
Sent: Wednesday, August 14, 2019 4:00 PM
To: Baker, Lorie <Baker.Lorie@epa.gov>
Subject: Questions on Blades from OMB and OLEM AA

Hi Lorie,

We had our NPL communications briefing with the OLEM AA a few days ago (which always includes more site-specific discussions than comms strategy). OLEM had a few questions. Separately, we just received some questions from OMB. Can you please provide a response to both ASAP?
Thanks.

Terry

Questions from OMB:

1. The fact sheet states 7 residential wells, while the site characterization form states 9 residential wells. Can you explain the difference?

PFAS concentrations exceeded the combined HAL of 70 ng/L for PFOS and PFOA concentrations in seven of the domestic wells that were sampled. Since that time, further sampling has been completed and two additional wells showed PFAS contamination - both above background, but below the HAL. DNREC is providing drinking water filters to 8 residences - the 7 residences above the HAL plus one of the two additional wells that showed PFOA/PFOS above 52.5 ng/l (75% of the HAL).

2. Site Characterization Form – In #1, groundwater plume with no identified source is checked; however, in #3, the Procino Plating facility is identified as the source. Can you please explain the difference?

Initially in the Site Characterization Form the plume was identified by maps in the Preliminary Assessment Report (2010). At this phase potentially two comingled groundwater plumes containing perflourinated compounds (PFAS) and other hazardous electroplating compounds appeared to be impacting the three municipal drinking water wells and seven residential wells. The two electroplating companies were potential sources at this phase, however, the extent of the plume was not fully identified and we could not determine whether one or both facilities, or other potential sources in the area were the cause of the PFAS in the public and residential wells. As we gathered more data for the HRS, it was evident that both facilities used PFAS and these two companies appear to be the main sources.

3. How will the responsibilities for the site be split with Delaware's Voluntary Cleanup Program?

The State of Delaware had accepted the Procino Plating and Peninsula Plating facilities into the VCP program. The Procino Plating property is currently conducting the State lead RI **Ex. 5 Deliberative Process (DP)** **Ex. 5 Deliberative Process (DP)** The owner of Procino does not have the means to do any significant GW remediation. The Peninsula Plating company is abandoned and the site is closed **Ex. 5 Deliberative Process (DP)** **Ex. 5 Deliberative Process (DP)** The State continues to provided point of use filters for 8 residential homes. The Town of Blades is providing the carbon change-out for the new public wells.

4. According to the Site Characterization form, PFOA and PFOS are the only PFAS compounds listed. Your email also indicated PFBS. Is PFBS going to be listed as a COC? If so, are you using the draft toxicity values?

PFBS will not be listed as a COC in the HRS package.

Questions from OLEM:

1. Contamination levels and source descriptions

Public Wells: Sole Source Aquifer

"Analytical results indicated that each of the three public supply wells had a total concentration of PFOS and perfluorooctanoic acid (PFOA) greater than the EPA health advisory level (HAL) of 70 parts per trillion (ppt) for combined PFOS and PFOA, with concentrations ranging between 96.2 ppt and 187.1 ppt." (HRS Documentation Record, 2019)

Residential Wells:

"From February to August 2018, EPA, under the Removal Program, collected groundwater samples from a total of 54 domestic wells for PFAS analysis at residences primarily located outside the town limits of Blades to the west and northeast. Five samples were collected from domestic wells within Blades that are not supplied potable water from the town water authority. Concentrations exceeded the combined HAL of 70 ppt for PFOS and PFOA in seven of the domestic wells located west of Blades. PFOS was the main contaminant detected, with concentrations ranging from 44 to 350 nanograms per liter (ng/L)." (HRS Documentation Record, 2019).

Monitoring Wells Onsite
Procino Plating:
The highest concentration was in well GW-02/MW-02 PFOS 2,820 ppt

Peninsula Plating:
The highest concentration was in well GW-03/MW-03 PFOS 157 ppt, PFOA 29.1 ppt

"DNREC has conducted investigations at the two electroplating facilities located in Blades, DE, in the vicinity of the public supply wells and within the Wellhead Protection Area of the wells. However, as the investigations occurred prior to the emergence of PFAS as contaminants of concern, and the focus was on inorganics, soil samples were not collected from these facilities for PFAS analysis" (HRS Documentation Record, 2019).

Since 1985, Procino Plating has been conducting copper, nickel and chrome electroplating operations at the facility located in Blades, DE. Chrome and other chemicals including Fumetrol 140™, which contains 1-7% PFOS, were stored in two tanks inside the process building, which originally had a wooden floor underlain by a crawl space with a soil floor. It has been shown that extensive soil contamination occurred during the continuous operations of the facility. Groundwater contamination has been also shown under and surrounding the facility to approximately 80 feet bgs and extending toward multiple residential and the three pubic wells. Contamination has also been identified in the creek 2000 feet to the south.

From 1992 to 1995, the Peninsula Plating facility conducted electroplating operations in a portion of a building located in the southwestern corner of the Blades Commercial Complex. Between August and December 1995, EPA completed a CERCLA Removal Action of the abandoned Peninsula Plating facility. Numerous vats, tanks, drums, and small containers of hazardous materials were found unsecured and abandoned. Chemicals present on-site included nickel sulfate, nickel chloride, sulfuric acid, chromic acid hexavalent chromium, copper cyanide, copper sulfate, zinc cyanide, and cadmium fluoroborate. The EPA Removal Action consisted of the off-site disposal of seventy-eight 55-gallon drums of hazardous waste and 30 cubic yards of hazardous solids and debris. Limited sampling was completed at the time. three collected soil samples for inorganic analyses contained concentrations of chromium ranging from 2.4 to 9.4 milligrams per kilogram (mg/kg), zinc ranging from 243 mg/kg to 800 mg/kg, copper ranging from 7.9 to 19.4 mg/kg, and cyanide ranging from 0.55 to 0.76 mg/kg. In 2018 EPA completed the SI which shows that PFOS, PFOA, and metals, such as chromium, cobalt, copper, nickel, zinc and hexavalent chromium, have been detected in the groundwater at concentrations that meet the criteria for an observed release.

Prior enforcement efforts

Procino Plating:

1983	Procino plating began operations
1994, 1998, 2002	Violation from DNREC-SHWMS and USEPA for improper handling of hazardous wastes.
2007, 2008	DNREC - Unsatisfactory inspections of the facility.
October, 2008	DNREC RCRA requested support from superfund's ER (Site is a RCRA SQG)
October 2, 2008	Site Removal Evaluation, PolRep 1 and Final.
2009	EPA - Criminal Investigation
2009	Procino Plating ceased operations
September 14, 2010	EPA Site Discovery
October, 2010	EPA Begin Site Assessment
October 20, 2010	Preliminary Assessment Report received under cooperative agreement with DNREC. Decision: Further Assessment Needed Under CERCLA - Higher Priority for further scoring.
2010	Draft HRS score would be expected to be above 28.5 federal threshold.
2011	EPA Begin Site Inspection
2011	EPA - Site Inspection Report received.
October 27, 2011	Site Inspection decision, Further Assessment Needed Under CERCLA - Higher Priority for further scoring. DNREC will oversee further assessment through the Delaware Voluntary Cleanup Program. Enter OCA status.
March 4, 2012	Procino Plating enters the Voluntary Cleanup Program.

May 2012 to August 2015	Remedial Investigation (May 2012 to August 2015)
August 8, 2013	Remedial Investigation Report submitted to DNREC .
July, 2015	Procino Plating RI/removal action – 14 tons of chromium impacted soil were removed.
July 24, 2015	Compliance Evaluation – inspection by DNREC, Company acknowledges use of Fumetrol 140 in memo and letter.

Peninsula Plating:
In 1995 DNREC requested EPA's assistance with the unsecured site. The facility had several NOV's issued by DNREC as part of their water discharges and onsite inspections. In 1995Between August and December 1995, EPA completed a CERCLA Removal Action of the abandoned Peninsula Plating facility. Numerous vats, tanks, drums, and small containers of hazardous materials were found unsecured and abandoned. Chemicals present on-site included nickel sulfate, nickel chloride, sulfuric acid, chromic acid hexavalent chromium, copper cyanide, copper sulfate, zinc cyanide, and cadmium fluoroborate (PFAS containing compound).

3. Any applicable permit provisions (appears to be subject to RCRA)

In approximately 1996, Procino Plating installed a subsurface wastewater collection and treatment system to collect and treat the wash and rinse water and the floor drain capture from the plant. The facility had a wastewater discharge permit for the discharge of this pre-treated process water to the sanitary sewer system. In 2007, the plating process in the second building was dismantled due to multiple violations, and the wastewater piping system and drains were sealed with concrete. The chrome tanks in the second building were drained and removed from service in 2009. Procino Plating was subject to DNREC's RCRA provisions as a small quantity waste generator.

The Peninsula Plating facility had a discharge permit issued by Sussex County that was revoked on May 30, 1995. On August 3, 1995, DNREC closed the discharge by pouring concrete into the drain system in front of the building. The endpoint of the discharge is not known; however, according to information provided by the Town of Blades Water and Maintenance Supervisor, the former Peninsula Plating building was not connected to the Sussex County sanitary sewer system until 2002. Peninsula Plating may have been subject to DNREC's RCRA provisions as a waste generator.

4. Description of work done under state voluntary program

Procino Plating entered into a Voluntary Cleanup Program (VCP) agreement with DNREC in 2011. From 2012 through 2015, Procino Plating, under the VCP, conducted Remedial Investigations and actions at the facility. Chromium contaminated soil was excavated and removed from beneath the chromium bath tanks to the extent practical without compromising the integrity of the building. Soil was excavated in a 10-foot by 10-foot area to a depth of 8 feet bgs. Post-excavation soil samples indicated that concentrations of chromium ranging from 23.8 mg/kg to 392 mg/kg remain in soil at the Procino Plating facility. In 2012, a groundwater sample collected from the monitoring well immediately south of the former chrome tanks (MW-6) contained concentrations of chromium of 1,170 µg/L (Ref. 38, p. 3). A groundwater sample collected by DNREC from **Ex. 9 - Wells** residential property contained 15.5 µg/L of chromium

From 1992 to 1995, the Peninsula Plating facility conducted electroplating operations in a portion of a building located in the southwestern corner of the Blades Commercial Complex. DNREC and EPA Removal programs conducted a Removal on the property in 1995. The State completed a limited soils and test pitting investigation in 1999.

5.Initial thoughts of needed actions to address the contamination

In order to address the contamination on the site, additional investigation is needed as part of a remedial investigation/feasibility study phase. In order to potentially treat the contamination from the two identified sources the full extent of the plume needs to be understood.